# REMARKS/ARGUMENTS

# **Claims Status**

Claims 1 and 3-9 are pending. Claims 1 and 3-9 are currently amended. Claim 2 is canceled without prejudice. Claim 1 is amended to remove parentheticals and to require the presence of fluorine in a specific amount pursuant to page 5, lines 1-9, of the specification. Claims 3-8 are amended to remove multiple dependency. Claims 5, 7 and 8 are amended to include proper Markush group language. Claims 3 and 4 are amended for antecedent basis purposes with respect to the gypsum of claim 1 comprising dihydrate gypsum and hemihydrate gypsum. The extraneous word "types" has been removed from claims 7 and 8. Claim 9 is amended to remove parentheticals. No new matter is believed to have been entered.

# §112, 2<sup>nd</sup> paragraph, Rejections

Claims 1-9 have been rejected for the following reasons: (a) use of abbreviations and parentheticals – these have been deleted from the claims, (b) improper Markush group language – this has been corrected in the claims, and (c) inclusion of an unnecessary/extraneous word "types" in claims 7 and 8 – this word has been deleted in both claims. Accordingly, Applicants request withdrawal of these rejections.

In addition, the Office has asserted that "Applicants may consider writing gypsum dehydrate and gypsum hemihydrate and reversing the order of terms in claims 3 and 4 or any other claim it appears" (Office Action, page 4). First, Applicants note that "gypsum dehydrate" as mentioned by the Office is not the same as the claimed "dihydrate gypsum" (see claims 3, 4 and 10, as well as page 7, lines 4-7, of the specification). Second, in order to maintain consistency with the entirety of the specification, Applicants have *not* reversed the order of the terms in the names of the types of gypsum referred to. As one skilled in the art

would readily understand the metes and bounds of the names of gypsum used, the naming as included in the claims does not render said claims indefinite. Accordingly, if this apparent suggestion by the Office to reverse the terms was instead intended to be a request, Applicants request its withdrawal in view of the foregoing.

# §102(b)/§103(a) and §103(a) Rejections

(1) Claims 1-9 are rejected as anticipate by, or in the alternative, obvious over JP '757 (JP 234757), JP '555 (JP 344555), JP '399 (JP 281399), JP '833 (JP 52154833), or JP '752 (JP 357198752). (2) Claims 1-9 are also rejected as obvious over any one of the already cited Japanese references in combination with Pennell (US 4,081,285) and Watson (US 4,022,630). Applicants respectfully traverse these rejections.

The present invention relates to a hydraulic composition capable of reducing the heat of hydration of mortars/concretes and capable of producing mortars/concretes excellent in flowability and strength. More specifically, the claimed hydraulic composition comprises gypsum, fluorine, and a ground burned product having a hydraulic modulus of 1.8-2.3, a silica modulus of 1.3-2.3, and an iron modulus of 1.3-2.8 (see claim 1 and [0001], [0013]).

(1) With respect to the anticipation rejections, Applicants note that none of JP '757, JP '555, JP '399 or JP '752 disclose a composition containing gypsum, the claimed burned product, and fluorine. Accordingly, none of these references anticipates the claimed invention which requires the presence of fluorine. With respect to JP '833, it should be noted that this reference discloses a cement raw material containing 0.5-2 wt% fluorspar, in addition to gypsum and a similar burned product (Abstract). However, in contrast to JP '833, the claimed invention comprises "no more than 0.4 wt%" of fluorine (see claim 1).

Accordingly, JP '833 does not anticipate the claimed invention. Thus, Applicants request withdrawal of the anticipation rejections over JP '757, JP '555, JP '399, JP '752, and JP '833.

Concerning the alternative obviousness rejections of the claimed invention over the same Japanese references individually (i.e., each of JP '757, JP '555, JP '399, JP '752, and JP '833 alone), Applicants submit that these references do not render obvious the claimed invention for the same reasons that the references do not anticipate the claimed invention. In other words, since none of JP '757, JP '555, JP '399 or JP '752 disclose a composition containing fluorine, they surely cannot *suggest* a fluorine-containing composition.

With respect to JP '833, as explained above, this reference discloses a cement raw material containing 0.5-2 wt% fluorspar. However, as this amount of fluorspar does not touch or overlap Applicants' claimed fluorine amount of no more than 0.4 wt%, *JP* '833 fails to support a *prima facie* case of obviousness based on overlapping/touching ranges.

Accordingly, each of JP '757, JP '555, JP '399, JP '752, and JP '833, alone, does not render obvious the claimed invention. As such, Applicants request withdrawal of the alternative obviousness rejections over these references individually.

(2) Additionally, the Office has asserted that present invention is obvious in light of the combination of any one of the Japanese references in combination with Pennell and Watson. Applicants submit that any of these combinations also fails to render obvious the claimed invention for at least the following reasons.

Watson is silent with respect to a <u>fluorine-containing</u> composition as claimed.

Accordingly, Watson's lack of disclosure or suggestion to include fluorine, does not fulfill the deficiencies of the Japanese references as discussed above.

With respect to Pennell, Applicants note that this reference discloses that "commonly encountered mineralisers include ... fluorine" (col. 2, lines 48-49). However, this disclosure by Pennell is very broad and does not include any indication as to desired amounts of the fluorine. Furthermore, Pennell does not specifically disclose or exemplify fluorine containing cements. Accordingly, one skilled in the art would not consider that such a broad

disclosure by Pennell, even in combination with the other references, renders obvious a fluorine containing mortar/cement, nevermind a mortar/cement containing up to 0.4 wt% of fluorine as claimed. Therefore, Pennell also fails to fulfill the deficiencies of the remaining references as discussed above.

Accordingly, any combination of the Japanese references with Pennell and Watson still fails to disclose or suggest the claimed invention wherein fluorine is present in an amount of no more than 0.4 wt%. Thus, Applicants request withdrawal of the combination obviousness rejections.

#### **Double Patenting Rejection**

Claims 1-9 are *provisionally* rejected under 35 U.S.C. §101 as claiming the same invention as that of claims 1-5 of US Application No. 11/576,604.

First, Applicants note the claims 1-5 of the '604 application were amended on August 13, 2009, to include 1-15 parts by mass of anhydrous gypsum. As can be seen from the claims presented herein, which do not recite such an anhydrous gypsum, the "same invention" is not being claimed. Second, the claims presented herein now require the presence of fluorine which is not required in the claims of the '604 application. Again, the "same invention" is not being claimed. Accordingly, Applicants request withdrawal of this rejection.

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# Conclusion

For the reasons discussed above, Applicants submit that all now-pending claims are in condition for allowance. Applicants respectfully request the withdrawal of the rejections and passage of this case to issue.

Respectfully submitted,

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